

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A display system for transmitting and receiving picture or video images between one or more wireless remote devices and a host display communicating on an Ultra-WideBand (UWB) wireless network using a UWB protocol, the display system comprising:

the host display unit comprising:

a display for presentation of the picture or video images; and

a UWB image transceiver operating as a UWB host for wirelessly

receiving the picture or video images for presentation on the display, and for selectively transmitting picture or video images based on receipt of an image selection request from one of the wireless remote devices; and

the one or more wireless remote devices comprising:

a digital camera unit for capturing a picture or video image; and

a UWB image transceiver, comprising:

a UWB MAC unit for support of the UWB protocol used to sense the UWB host and synchronize communications with the UWB host, to set up a communication link between the UWB host and one of the remote devices for uploading and downloading the picture and video image data to and from the UWB host, respectively; and

a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;

wherein the one or more wireless remote devices operable to wirelessly transmit captured picture or video images to the host display unit and to selectively receive picture or video images from the host display unit based on generating and transmitting the image selection request to the host display unit;

wherein one or more of the wireless remote devices capture and transmit a picture or video image to the host display unit, and wherein upon receipt of an image selection request, the host display unit transmits the displayed image to the UWB wireless ~~video~~ network, the image subsequently received by the requesting wireless remote device on the UWB wireless network.

2. (Currently Amended) The display system of claim 1, wherein the one or more of the wireless remote devices comprise:

a local display for presentation of a picture or video image; and
a UWB child transceiver, the one or more wireless remote devices operable to wirelessly retransmit stored picture or video images to the host display unit through the UWB wireless network and to selectively receive picture or video images from the host display unit based on generating and transmitting the image selection request to the host display unit through the UWB wireless.

3. (Currently Amended) The display system of claim 2, wherein the digital camera unit of one or more of the wireless remote devices is operable to capture live video images.

4. (Currently Amended) The display system of claim 3, wherein the host display ~~system~~ unit and least one of the wireless remote devices ~~is~~ are operable to communicate and display the live video images.

5. (Currently Amended) The display system of claim 1, wherein the host display unit and the one or more wireless remote devices are operable to communicate using a UWB signal directly between one another exclusive of a wide area network.

6. (Currently Amended) The display system of claim 5, wherein the host display unit is operable to directly upload and display the picture or video images from one of the wireless remote devices.

7. (Currently Amended) The display system of claim 68, wherein the host display unit is operable to directly upload and display the picture or video images from one of the wireless telephones.

8. (Currently Amended) The display system of claim 1, wherein the one or more remote wireless devices are one or more wireless telephones.

9. (Original) The display system of claim 8, wherein one or more of the wireless telephones is operable to receive the picture or video images using a UWB signal directly from another of the wireless telephones.

10. (Original) The display system of claim 8, wherein one or more of the wireless telephones have a digital camera unit, the wireless telephone operable to transmit the picture or video images.

11. (Currently Amended) The display system of claim 10, wherein one of the wireless telephones is operable to receive and display the picture or video images captured by the digital camera unit downloaded directly from the host display unit using a UWB signal.

12. (Currently Amended) The display system of claim 9, wherein one of the wireless telephones is operable to directly download and display the picture or video images using the UWB signal directly from the host display unit or from one of the wireless telephones.

13. (Currently Amended) The display system of claim 1, wherein the host display unit comprises one of a television, computer (PC), or video projector for display of one or more picture or video images uploaded from one of the wireless remote devices.

14. (Currently Amended) The display system of claim 13, wherein the host display unit comprises one of an Liquid Crystal Display (LCD), Cathode Ray Tube (CRT), Plasma, flat panel, and Digital Light Processing (DLP™) display technology.

15. (Currently Amended) The display system of claim 1, wherein the UWB image transceiver further comprises:

a memory for temporarily storing the picture and video images as image data captured by the digital camera unit and for presentation by the host display and the local display;

a picture processing unit for compressing the image data stored in the memory, and for support of the graphics user interface of the host and local display;

~~a UWB MAC unit for support of the UWB protocol used to sense the UWB host and synchronize communications with the host, to set up a communication link between the host and one of the remote devices for uploading and downloading the picture and video image data to and from the host, respectively; and~~

~~a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;~~

wherein in the remote device, the digital camera unit, the local display, and the picture processing unit are operably coupled to the memory, the picture processing unit is operably coupled to the UWB MAC unit, the UWB MAC unit is coupled to the UWB PHY unit, which is also connected to the antenna,

wherein in the host display unit, the large display, and the picture processing unit is operably coupled to the memory, the picture processing unit is operably coupled to the UWB MAC unit, the UWB MAC unit is coupled to the UWB PHY unit, which is also connected to the antenna, wherein in one of the remote devices, image data from the digital camera unit is stored in the memory for image presentation on the local display and is selectively transmitted to the host display unit by passing image data from the memory to the picture processing unit for image data

decompression, which is sent to the UWB MAC unit for synchronization in accordance with the UWB protocol and to the UWB PHY unit for UWB baseband addition and RF modulation of the UWB signal and to the antenna for transmission to the host display unit; and
wherein in the host display unit, image data from the digital camera unit is received in the UWB image transceiver over the RF modulated baseband of the UWB signal *via* the antenna of the UWB PHY unit into the UWB MAC unit for synchronization in accordance with the UWB protocol for communication to the picture processing unit for image data compression and storage in the memory for image presentation on the large display of the host display unit, the UWB image transceiver of the host display unit operable to selectively retransmit the captured picture or video images to the remote devices based on generating and transmitting an image selection request to the host display unit.

16. (Currently Amended) A wireless device for directly communicating picture or video images over an Ultra-WideBand (UWB) wireless signal with a host display unit or anothera second wireless device, the wireless device comprising:

a local display for local presentation of the picture or video images; and
a UWB image transceiver selectively operable to receive or transmit the picture or video images over a UWB wireless signal directly communicating with anotherthe second wireless device based on receipt of an image selection request from the receivingsecond wireless device, said UWB image transceiver comprising:
a UWB MAC unit for support of the UWB protocol used to set up a communication link between the wireless device and the host display unit or the second wireless device for uploading and downloading the picture and video image data, and
a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;

wherein one of the wireless devices captures and transmits the picture or video images to anotherthe second wireless device or at the host display

unit for display, and wherein upon receipt of an image selection request, ~~the host display~~the wireless device transmits the displayed picture or video images directly over a UWB wireless signal to the requesting wireless device for storage.

17. (Currently Amended) The wireless device of claim 16, further comprising a digital camera unit for capturing the picture or video images for communication with the host display unit or another~~the second~~ wireless device using the UWB wireless signal.

18. (Currently Amended) The wireless device of claim 16, further comprising a ~~wireless telephone having~~ a microphone and a speaker for two-way audio communications with ~~another~~the second wireless device using a voice ~~cellular~~ network.

19. (Currently Amended) The wireless device of claim 1618, wherein the wireless device is a cellular telephone.

20. (Currently Amended) The wireless device of claim 16, wherein the host display unit has a substantially larger display than the display of the wireless device and wherein the host display unit transmits the displayed picture or video images directly over the UWB wireless signal to the requesting wireless device upon receipt of an image selection request at the host display unit.

21. (Currently Amended) A wireless telephone for directly communicating picture or video images over an Ultra-WideBand (UWB) wireless signal with a host display unit or another~~the second~~ wireless telephone, the wireless telephone comprising:
a local display for local presentation of the picture or video images; and
a UWB image transceiver selectively operable to receive or transmit the picture or video images over a UWB wireless signal directly communicating with ~~another~~the second wireless telephone based on receipt of an image selection request from the ~~receiving~~the second wireless telephone, said UWB image transceiver comprising:

a UWB MAC unit for support of the UWB protocol used to set up a communication link between the wireless telephone and the host display unit or the second wireless telephone for uploading and downloading the picture and video image data, and

a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;

wherein ~~one of~~ the wireless telephones ~~captures~~ and transmits the picture or video images to ~~another~~the second wireless telephone or a host display unit for display, and wherein upon receipt of an image selection request from the second wireless telephone, the host displaythe wireless telephone transmits the displayed image to the wireless video network, ~~the image subsequently received by~~thus to the requesting second wireless telephone on the network.

22. (Currently Amended) The wireless telephone of claim 21, further comprising a digital camera unit for capturing the picture or video images for transmission to the host display or ~~another~~the second wireless telephone.

23. (Currently Amended) The wireless telephone of claim 22, further comprising a microphone and a speaker for two-way audio communications with ~~another~~the second wireless telephone using a cellular network.

24. (Currently Amended) The wireless telephone of claim 21, wherein the wireless telephone is a cellular telephone and the host display unit is a television.

25. (Currently Amended) The wireless telephone of claim 21, wherein the host display unit has a substantially larger display than the local display.

26. (Currently Amended) A wireless telephone for communicating picture or video images over an Ultra-WideBand (UWB) wireless signal, the wireless telephone comprising:

a digital camera unit for capturing the picture or video images;

a local display for local presentation of the captured picture or video images; and a UWB image transceiver selectively operable to transmit or receive the captured picture or video images over a UWB wireless signal directly communicating with a host display unit, the receiving of the picture or video images based on receipt by the host display unit of an image selection request from the wireless telephone, said UWB image transceiver comprising:

a UWB MAC unit for support of the UWB protocol operable to set up a communication link between the wireless telephone and the host display unit or the second wireless telephone for uploading and downloading the picture and video image data, and

a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;

wherein the wireless telephone captures the picture or video images for display on the local display and selectively transmits the picture or video images to the host display unit, and wherein upon subsequent receipt of an image selection request from the wireless telephone or another wireless telephone, the host display unit retransmits the displayed image to the requesting wireless telephone over a UWB wireless signal.

27. (Original) The wireless telephone of claim 26, further comprising a microphone and a speaker for two-way audio communications with another wireless telephone using a cellular network.

28. (Currently Amended) The wireless telephone of claim 26, wherein the UWB image transceiver further comprises:

a memory for temporarily storing the picture and video images as image data captured by the digital camera unit and for presentation by the host display and the local display;

a picture processing unit for compressing the image data stored in the memory, and for support of the graphics user interface of the host and local display;

~~wherein thea UWB MAC unit for support of the UWB protocol is used to sense thea UWB host and synchronize communications with the UWB host, to set up a communication link between the host and one of the remote devices for uploading and downloading the picture and video image data to and from the host, respectively; and~~

~~a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;~~

wherein in the wireless telephone, the digital camera unit, the local display, and the picture processing unit are operably coupled to the memory, the picture processing unit is operably coupled to the UWB MAC unit, the UWB MAC unit is coupled to the UWB PHY unit, which is also connected to the antenna, and further wherein in the wireless telephone, image data from the digital camera unit is stored in the memory for image presentation on the local display and is selectively transmitted to the host display by passing image data from the memory to the picture processing unit for image data decompression, which is sent to the UWB MAC unit for synchronization in accordance with the UWB protocol and to the UWB PHY unit for UWB baseband addition and RF modulation of the UWB signal and to the antenna for transmission to the host display.

29. (Currently Amended) The wireless telephone of claim 26, wherein the host display unit has a substantially larger display than the local display.

30. (Currently Amended) The wireless telephone of claim 26, wherein the wireless telephone is a cellular telephone and the host display unit is a television.

31. (Currently Amended) A wireless digital camera for transmitting or receiving a picture or video images over an Ultra-WideBand (UWB) wireless signal in direct communication with a host display unit having a UWB image transceiver operating as a UWB host, the wireless digital camera comprising:

- a digital camera unit for capturing the picture or video images;
- a local display for presentation of the picture or video images; and
- a UWB image transceiver selectively operable to communicate directly with the host display over a UWB wireless signal based on receipt of an image selection request from the receiving wireless digital camera to transmit or

receive the captured picture or video images, the UWB image transceiver comprising:

a UWB MAC unit for support of the UWB protocol used to sense the UWB host and synchronize communications with the host, to set up a communication link between the host and digital camera for uploading and downloading the picture and video image data to and from the host, respectively; and
a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;

wherein the wireless digital camera captures and transmits the picture or video images to the host display, and wherein upon receipt of an image selection request, the host display retransmits the displayed image to the wireless digital camera over a UWB wireless signal.

32. (Original) The wireless digital camera of claim 31, wherein the UWB image transceiver further comprises:

a memory for temporarily storing the picture and video images as image data captured by the digital camera unit and for presentation by the local display;

a picture processing unit for compressing the image data stored in the memory, and for support of the graphics user interface of the local display;

~~a UWB MAC unit for support of the UWB protocol used to sense the UWB host and synchronize communications with the host, to set up a communication link between the host and digital camera for uploading and downloading the picture and video image data to and from the host, respectively; and~~

~~a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;~~

wherein the digital camera unit, the local display, and the picture processing unit are operably coupled to the memory, the picture processing unit is operably coupled to the UWB MAC unit, the UWB MAC unit is operably coupled to the UWB PHY unit, which is also ~~connected~~operably coupled to the antenna, wherein image data from the digital camera unit is stored in the memory for image presentation on the local display and is selectively transmitted to the host

display by passing image data from the memory to the picture processing unit for image data decompression, which is sent to the UWB MAC unit for synchronization in accordance with the UWB protocol and to the UWB PHY unit for UWB baseband addition and RF modulation of the UWB signal and to the antenna for transmission to the host display.

33. (Currently Amended) A wireless display device for displaying picture or video images on a host display unit having a UWB image transceiver operating as a UWB host, the image data received over an Ultra-WideBand (UWB) wireless signal directly from a UWB remote device, the wireless display device comprising:

the host display unit for presentation of the picture or video images; and
a UWB image transceiver selectively operable to receive or transmit the picture or video images over a UWB wireless signal directly communicating with the UWB remote device based on receipt of an image selection request from the UWB remote UWB device, said UWB image transceiver comprising:

a UWB MAC unit for support of the UWB protocol used to sense the UWB host and synchronize communications with the UWB host, to set up a communication link between the UWB host and one of the remote UWB devices for uploading and downloading the picture and video image data to and from the host display unit, respectively; and

a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;

wherein the UWB remote UWB device captures and transmits the picture or video images to the wireless display device, and wherein upon receipt of an image selection request, the wireless display device transmits the displayed picture or video images directly over a UWB wireless signal to the requesting UWB remote device.

34. (Original) The wireless display device of claim 33, wherein the wireless display device is a television.

35. (Currently Amended) The wireless display device of claim 33, wherein the wireless display device comprises one of a television, computer (PC), or video projector

for display of one or more picture or video images uploaded from the UWB remote device.

36. (Currently Amended) The wireless display device of claim 35, wherein the host display unit comprises one of an Liquid Crystal Display (LCD), Cathode Ray Tube (CRT), Plasma, flat panel, and Digital Light Processing (DLP™) display technology.

37. (Currently Amended) The wireless display device of claim 33, wherein the wireless display device has a substantially larger display than the display of the UWB remote UWB device.

38. (Currently Amended) The wireless display device of claim 33, wherein the UWB image transceiver comprisesfurther comprising:

a memory for temporarily storing the picture and video images as image data captured by a digital camera unit and for presentation by the host display unit;

a picture processing unit for compressing the image data stored in the memory, and for support of the graphics user interface of the host display unit;

~~a UWB MAC unit for support of the UWB protocol used to sense the UWB host and synchronize communications with the host, to set up a communication link between the host and one of the remote devices for uploading and downloading the picture and video image data to and from the host, respectively; and~~

~~a UWB PHY unit having baseband and RF hardware coupled to an antenna and used to send and receive UWB signals;~~

wherein the host display unit and the picture processing unit are operably coupled to the memory, the picture processing unit is operably coupled to the UWB MAC unit, the UWB MAC unit is coupled to the UWB PHY unit, which is also connected operably coupled to the antenna, and

wherein in the host display unit, image data from the digital camera unit is received in the UWB image transceiver over the RF modulated baseband of the UWB signal *via* the antenna of the UWB PHY unit into the UWB MAC unit for synchronization in accordance with the UWB protocol for communication to the picture processing unit for image data compression and storage in the memory for image presentation on the

large display of the host display, the UWB image transceiver of the host display unit operable to selectively retransmit the captured picture or video images to the UWB remote devices based on generating and transmitting an image selection request to the host display unit.

39. (Currently Amended) A method of communicating picture or video images over an Ultra-WideBand (UWB) wireless signal directly between a cellular telephone and a host display unit having a UWB image transceiver operating as a UWB host of a display system, the host display unit having a UWB host, the method comprising:

sensing the UWB host;

synchronizing communications with the UWB host and the cellular telephone;

transmitting an initial access request from the cellular telephone to the host

display unit, requesting an upload of the picture or video images;

waiting for readiness of the host display unit;

transmitting from the host display unit to the cellular telephone, an acceptance for the upload;

uploading the picture or video images over the UWB wireless signal to the UWB host using a UWB time-slot assigned by the UWB host;

storing the picture or video images in a host memory of the host display unit;

accessing the host memory; and

displaying the picture or video images on the host display unit;

sensing a requesting cellular telephone;

transmitting an image download request to the host display from the requesting
cellular telephone;

requesting a download of the picture or video images currently displayed on the
host display unit;

waiting for an acknowledgement from the host display unit for the download;

transmitting to the requesting cellular telephone, the acknowledgement for the
download;

downloading the picture or video images over the UWB wireless signal to the
requesting cellular telephone using a UWB time-slot assigned by the UWB
host;

receiving and storing the picture or video images in a local memory of the
requesting cellular telephone.

40. (Cancelled).

41. (Currently Amended) The method of claim 4039, wherein the downloading of the picture or video images from the host display unit is simultaneously downloaded to one or more requesting cellular telephones.

42. (Currently Amended) The method of claim 4039, wherein the receiving and storing of the picture or video images downloaded from the host display unit is simultaneously received and stored in the local memory of one or more requesting cellular telephones.

43. (Currently Amended) The method of claim 39, further comprising: capturing the picture or video images using a digital camera unit prior to transmitting the initial access request from the cellular telephone to the host display unit.